

AMENDMENTS TO THE CLAIMS

1. **(Currently amended)** An autoclave package containing a product therein and, comprising a fibre-based packaging material treated with a hydrophobic size and comprising on the inside and/or outside of the fibre substrate one or more layers for reduced water penetration, the package having been treated under pressure at a temperature of 100 to 250 °C for a time of 5 min to 30 h in water vapor, wherein

the fibre substrate has been treated with a hydrophobic size, an aluminium compound and a wet-strength size for increased heat resistance of the packaging material,

the hydrophobic size has been used in an amount of 0.5 to 3.0 kg/t of dry fiber substrate,

[[and]]

the weight ratio of hydrophobic size to the aluminium compound is 1:0.5-1:5, and

the layer for reduced water penetration of the packaging material comprises a polymer coating.

2-3. (Cancelled)

4. **(Currently amended)** [[A]] The package as defined in claim 1, wherein the hydrophobic size comprises at least one size selected from the group consisting of alkenyl succinic acid anhydride (ASA) and alkyl ketene dimer (AKD).

5. **(Currently amended)** [[A]] The package as defined in claim 1, wherein the hydrophobic size comprises an ASA size.

6. **(Currently amended)** ~~[[A]]~~ The package as defined in claim 1, wherein the aluminium compound has been used in an amount of 1.0-20 kg/t of dry fibre substrate.

7. **(Currently amended)** ~~[[A]]~~ The package as defined in claim 1, wherein the aluminium compound comprises aluminium salt.

8. **(Currently amended)** ~~[[A]]~~ The package as defined in claim 1, wherein the wet-strength size has been used in an amount of 0.2-12 kg/t of dry fibre substrate.

9. **(Currently amended)** ~~[[A]]~~ The package as defined in claim 1, wherein the wet-strength size contains polyamido amine epichlorine hydrine resin (PAAE size).

10. **(Cancelled)**

11. **(Currently amended)** ~~[[A]]~~ The package as defined in claim 1, wherein the packaging material comprises in the following order: a polymer heat-sealing layer, a white-pigmented polymer layer, a polymer layer containing black pigment, a treated fibre substrate, one or more polymer oxygen-barrier layers, a binder layer, a grey-pigmented polymer light-shield layer and a polymer heat-seal layer.

12. **(Currently amended)** ~~[[A]]~~ The package as defined in claim 1, wherein a filler has been added to the fibre substrate for increased heat resistance of the package.

13. (Currently amended) [[A]] The package as defined in claim 1, wherein the fibre substrate comprises at least one selected from the group consisting of wrapping paper and board.

14. – 17. (Canceled)

18. (Previously presented) A method for autoclave treatment, comprising using a combination of an aluminium compound, a hydrophobic size and a wet-strength size for increased autoclaving heat resistance of a product package made of a fibre-based packaging material, such as reduced raw-edge penetration, in autoclaving under pressure at a temperature of 100 to 250 °C for a time of 5 min to 30 h, wherein the autoclaving is carried out in water vapor.

19. (Previously presented) A method for autoclave treatment of a product package comprising a fibre-based packaging material treated with a hydrophobic size and comprising on the inside and/or outside of the fibre substrate one or more layers for reduced water penetration, comprising:

treating a fibre substrate with a hydrophobic size, an aluminium compound and a wet-strength size for reduced raw-edge water penetration of the packaging material, the weight ratio of hydrophobic size to the aluminium compound being 1:0.1 – 1:10; and

autoclaving the package under pressure with the aid of vapour at a temperature of 100 to 250 °C for a time of 5 min to 30 h.

20. **(Currently amended)** **[[A]]** The method as defined in claim 19, wherein the weight ratio of hydrophobic size to the aluminium compound is 1:0.5 to 1:5.

21. **(Currently amended)** **[[A]]** The method as defined in claim 19, wherein the hydrophobic size is used in an amount of 0.5 to 3.0 kg/t of dry fibre substrate.

22. **(Currently amended)** **[[A]]** The method as defined in claim 19, wherein the hydrophobic size comprises at least one size selected from the group consisting of alkenyl succinic acid anhydride (ASA) and alkyl ketene dimer (AKD).

23. **(Currently amended)** **[[A]]** The method as defined in claim 22, wherein the hydrophobic size comprises an ASA size.

24. **(Currently amended)** **[[A]]** The method as defined in claim 19, wherein the aluminium compound comprises aluminium salt.

25. **(Currently amended)** **[[A]]** The method as defined in claim 24, wherein the aluminium compound is alum.

26. **(Currently amended)** **[[A]]** The method as defined in claim 19, wherein the wet-strength size contains polyamido amine epichlorine hydrine resin (PAAE size).

27. **(Currently amended)** **[[A]]** The method as defined in claim 19, wherein the one or more layers for reduced water penetration comprise a polymer coating.

28. **(Currently amended)** **[[A]]** The method as defined in claim 19, wherein the fibre substrate comprises at least one selected from the group consisting of wrapping paper and board.

29. **(Currently amended)** **[[A]]** The method as defined in claim 19, wherein the product package further comprises foodstuff therein.

30. **(Previously presented)** The package as defined in claim 1, wherein said product contained in said package is a foodstuff.

31. **(Currently amended)** **[[A]]** The method as defined in claim 19, wherein said autoclaving is performed on said package when said package is in an empty state.

32. **(Currently amended)** **[[A]]** The method as defined in claim 19, wherein said autoclaving is performed on said package when said package has a product contained.

33. **(New)** An autoclave package containing a product therein and, comprising a fibre-based packaging material treated with a hydrophobic size and comprising on the inside and/or outside of the fibre substrate one or more layers for reduced water penetration, the package having been treated under pressure at a temperature of 100 to 250 °C for a time of 5 min to 30 h in water vapor, wherein

the fibre substrate has been treated with a hydrophobic size, an aluminium compound and a wet-strength size for increased heat resistance of the packaging material,

the hydrophobic size has been used in an amount of 0.5 to 3.0 kg/t of dry fiber substrate, the weight ratio of hydrophobic size to the aluminium compound is 1:0.5-1:5, and

the packaging material comprises in the following order: a polymer heat-sealing layer, a white-pigmented polymer layer, a polymer layer containing black pigment, a treated fibre substrate, one or more polymer oxygen-barrier layers, a binder layer, a grey-pigmented polymer light-shield layer and a polymer heat-seal layer.